

Serial #: 10/037,797  
Reply to Office action of July 7, 2003  
page 5 of 12

**Remarks/Arguments**

In the Office action, claims 1-4 and 6-8 were rejected under 35 U.S.C. § 103 and claim 4 was rejected under § 112. Claims 1-4 and 6-8 are currently pending in the application. Claim 7 is currently amended and is fully supported by the specification. No new matter has been added to the prosecution of this application. For at least the reasons stated below, Applicants assert that all claims are now in condition for allowance, and, therefore Applicants respectfully request the Examiner's reconsideration of this matter.

**1. Claim 7 is now spelled correctly**

The Examiner objected to claim 7 because the word "torchère" was misspelled as "torchiere". Claim 7 has been amended to reflect the requested spelling of the word to "torchère". Applicants assert that the claim is now in form for allowance and request that the Examiner remove the objection and allow claim 7.

**2. 35 U.S.C. § 112 Rejection is improper since Trademarks are Permissible**

Claim 4 has been rejected under 35 U.S.C. § 112 as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Specifically, Examiner rejected Claim 4 because of the use of the trademarks "HALOPIN" and "OSRAM" which, in the Examiner's reasoning, was improper because a trademark "cannot be used properly to identify any particular material or product" (Office Action, section 5). Applicants respectfully oppose this rejection.

Section 608.01(v) of the MPEP deals with the use of trademarks in patent applications. That section states that the "relationship between a trademark and the

Serial #: 10/037,797  
Reply to Office action of July 7, 2003  
page 6 of 12

product it identifies is sometimes indefinite, uncertain, and arbitrary" (emphasis added). While some trademarks refer to products whose characteristics may change from time to time, "if the product to which the trademark refers is set forth in such language that its identity is clear, the examiners are authorized to permit the use of the trademark if it is distinguished from common descriptive nouns by capitalization. ... The matter of sufficiency [with use of a trademark] must be decided on an individual case-by-case basis" (MPEP 608.01(v), partially citing *In re Metcalfe*, 410 F.2d 1378, 161 USPQ 789 (CCPA 1969), emphasis added). In addition, "the presence of a trademark ... in a claim is not, *per se*, improper ... but the claim should be carefully analyze to determine how the mark or name is used in the claim" (MPEP 2173.05(v)).

Claim 4 only includes the use of a single trademark ("HALOPIN"). The term OSRAM is used as a business name rather than as a trademark. OSRAM is an international company based in Germany that produces light bulbs, including halogen light bulbs used by this invention. It is one of the three leading light bulb producers in the world and has worldwide sales of 4.4 billion euros in 2002. With OSRAM's international market-leader presence, use of the HALOPIN trademark in connection with OSRAM's business name would be unmistakable to one skilled in the field of lamp design. Thus, claim four does not fail for lack of definiteness under 35 U.S.C. § 112, and Applicants respectfully request that the Examiner's rejection be withdrawn.

### **3. The 103(a) Rejections are Improper**

Claims 1-4 and 6-8 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Lavy (U.S. 6,059,426) (hereinafter referred to as "Lavy") in view of Leen (U.S. 5,984,490) (hereinafter referred to as "Leen"). Because neither Lavy nor Leen (alone or in combination) teaches or suggests all of the claim limitations, and because there is no

Serial #: 10/037,797  
Reply to Office action of July 7, 2003  
page 7 of 12

suggestion or motivation to combine *Lavy* with *Leen*, Applicants respectfully object to these rejections.

#### **A. Applicants' Invention**

Applicants' invention is generally a fire-safe lighting system that relies on multiple lower wattage halogen light bulbs. These light bulbs together provide wattage generally equivalent to a single high-watt halogen bulb used in prior-art halogen lighting systems. For example, one embodiment the invention uses five 60-watt bulbs (i.e.,  $5 \times 60$  watts = 300 watts) to obtain the same wattage as a single 300 watt bulb. In one embodiment, the invention is broadly defined as:

A lighting system having a reduced danger of fire hazard achieved by reducing the operating temperature of the system, comprising:

a housing;

a plurality of halogen light bulb units generally uniformly spaced within the housing;  
and

a shield connected to the housing, for inhibiting access to the plurality of halogen light bulb units from above, the shield positioned such that the plurality of halogen light bulb units are between the shield and the housing, the plurality of halogen bulbs and the shield configured such that the temperature of the shield on a surface opposite the plurality of halogen bulbs stays below 500°F.

Unlike prior art systems, Applicants' multi-bulb approach does not create an operating temperature high enough to pose a risk of combustion should drapes or other flammable material contact the light bulbs. For example, instead of a 300-watt bulb's

Serial #: 10/037,797  
Reply to Office action of July 7, 2003  
page 8 of 12

dangerously hot operating temperature, each of the 60-watt bulbs operates at a significantly lower temperature, such that the temperature of the shield covering the bulbs will be less than 500 degrees. Even though the light bulbs operate at a safer temperature, Applicants' invention place the series of bulbs within the housing, covered by a shield that inhibits access to the light bulb units and providing the temperature reductions mentioned above. In some embodiments of the present invention an air ventilation system and/or a heat sensor and/or a tilt switch are also included as other fire-safe lighting features.

**B. The Cited Art does not teach the Invention's Heat-Reducing Configuration**

An invention is patentable provided that it is not an obvious modification to an existing patented invention. Section 2143 of the MPEP provides in part that "to establish a *prima facie* case of obviousness ... the prior art reference ... must teach or suggest all the claim limitations." (emphasis added). The cited references alone or in combination fail to teach or suggest all of the claim limitations.

The Examiner asserts that *Lavy* teaches all of the claim limitations but for the use of multiple light bulb units. Specifically, the Examiner asserts that *Lavy* teaches "the shield configured such that the temperature of the shield on a surface opposite the plurality of halogen bulbs stays below 500°F" since such a limitation is "apparently known to those skilled in the art of halogen" (Office Action pp. 3 and 4). Applicants disagree that either *Lavy* or those skilled in the art of halogen understand how to position the bulb units and shield so that the operating temperature of the shield's surface is below 500°F. Referring to the first two pages of the specification, Applicants point out that in 1997 the U.S. Consumer Product Safety Commission and the halogen lamp industry worked together to recall over 40 million torchère lamps since such lamps tended to cause fires due to the high levels of

Serial #: 10/037,797  
Reply to Office action of July 7, 2003  
page 9 of 12

heat (i.e., operating temperatures of over 500°F) produced during operation. Between 1992 and 1997, 189 fires were documented that were caused by torchère lamps.

Those skilled in the art of halogen did not know how to reduce the operating temperatures of the shield (as a result of the heat produced by the halogen bulb). In response to the product recalls of 1997, however, those skilled in the art designed torchère lamps to include wire guards to ensure that curtains and other flammable materials cannot come in contact with the hot areas of the lamp (see, Specification, page 2). This information directly contradicts the Examiner's assertion that "the shield configured such that the temperature of the shield on a surface opposite the plurality of halogen bulbs stays below 500°F" is known to those skilled in the art of halogen.

*Lavy* in no way suggests or teaches a subsequent inventor to use multiple bulbs to reduce the hazard created by a light fixture with a high operating temperature. All language of *Lavy* contemplates applying prophylactic measures to abate the heat generated by the single halogen bulb. See, e.g., col. 3 ll. 47-49 ("to prevent heat builds (*sic*) up in the high temperature burning zone, the lamp head of the present invention is incorporated with an anti-combustion arrangement") (internal numerical references removed). *Lavy* does not suggest a change to the source of the intense heat itself. Furthermore, the language of *Lavy* does not contemplate or consider that the intense heat produced may be abated through methods alternative to that proposed in *Lavy*; the patent assumes that heat will be produced by the bulb fixture. The following excerpts demonstrate this presupposition that hazardous heat will be produced:

"a holding means [...] for] a high voltage [...] light source [...] that would generate heat." Col. 3, ll. 19-20.

Serial #: 10/037,797  
Reply to Office action of July 7, 2003  
page 10 of 12

"the halogen light source and the concave reflecting surface become burning hot." Col. 3, ll. 42-43.

"such combustible object will be burnt by the heat of the high temperature burning zone." Col. 3, ll. 49-50.

Thus, *Lavy* teaches a person skilled in the art towards other modifications to protect the high temperature burning zone from contact with combustible materials. *Lavy* teaches away from establishing a burning zone of a lower temperature, which is what is accomplished by the Applicants' invention. As *Lavy* teaches or suggests such a heat-reducing configuration, the cited references do not teach the "the shield configured such that the temperature of the shield on a surface opposite the plurality of halogen bulbs stays below 500°F" limitation.

**C. The Cited Art does not teach the Invention's use of a Plurality of Bulbs with a Operating Temperature below 500 Degrees**

The Examiner asserts that while *Lavy* does not teach "a plurality of halogen light bulb units generally uniformly spaced within the [torchère's] housing", *Leen* teaches such a limitation. Applicants disagree. Furthermore, Applicants argue that *Leen* doesn't teach "the plurality of halogen light bulb units having a total lighting power generally equal to a single high-watt halogen bulb system" as in claim 8.

*Leen* does not contemplate a lamp fixture that uses multiple bulbs to produce the same output of light as produced by a single, higher-wattage bulb. The *Leen* invention incorporates multiple bulbs to switch between a usual lower level of light (in which a single bulb is powered) and a higher level of light intensity powered by two light bulbs ("a portable, dual-bulb halogen work light [...] that] can be used as a low- or high-intensity

Serial #: 10/037,797  
Reply to Office action of July 7, 2003  
page 11 of 12

work light"). *Leen*, col. 3, ll. 57-59. Such language does not teach or suggest the constant use of a plurality of bulbs in order that "the plurality of halogen bulbs stays below 500°F", as required by the claim. As is the case with *Lavy*, *Leen* does not suggest the addition of lower wattage halogen light bulbs to reduce the fire hazard of a residential lighting fixture. *Leen* recognizes the heating problem of halogen light bulbs and deals with it much like *Lavy*. *Leen* provides for a protective piece that fits over the halogen bulb so as to shield the halogen bulb from contact with combustible materials. *Leen* applies both a glass plate 25 and a grill 29 to serve this function. Using such a plate and grill illustrates that *Leen* teaches away from the invention of a lamp that uses a plurality of light bulbs "configured such that the temperature of the shield on a surface opposite the plurality of halogen bulbs stays below 500°F".

**D. The Cited Art does not teach the Invention's Use of a Tilt Switch**

Claim 6 includes the limitation of a tilt switch. While Examiner asserts that *Lavy* teaches such a limitation, Applicants' are unable to find it anywhere in the *Lavy* specification. Applicants' therefore request that the Examiner specify the location of this limitation in *Lavy* or else withdraw the rejection for claim 6.

For the above-indicated reasons, *Lavy* and *Leen* (alone or in combination) fail to disclose or suggest all claim limitations, including the limitations of "lighting system having a reduced danger of fire hazard achieved by reducing the operating temperature of the system", "the plurality of halogen bulbs and the shield configured such that the temperature of the shield on a surface opposite the plurality of halogen bulbs stays below 500°F", and "the plurality of halogen light bulb units having a total lighting power generally equal to a

Serial #: 10/037,797  
Reply to Office action of July 7, 2003  
page 12 of 12

single high-watt halogen bulb system". Accordingly, Applicants respectfully requests withdrawal of the 35 U.S.C. § 103(a) rejections.

#### 4. Conclusion

Applicant submits that all pending claims are allowable over the art of record and respectfully requests that a Notice of Allowance be issued in this case. In the event a telephone conversation would expedite the prosecution of this application, the Examiner may reach the undersigned at 612-607-7508. If any fees are due in connection with the filing of this paper, then the Commissioner is authorized to charge such fees including fees for any extension of time, to Deposit Account No. 50-1901 (Docket # 13414-311).

Respectfully submitted,

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